For Immediate Release
June 15, 1998

John Dell'Osso
(415) 663-8522, ext. 226

IMMUNO-CONTRACEPTION RESEARCH FOR MANAGING TULE ELK POPULATION

Superintendent Don Neubacher today announced the second phase of a tule elk immuno-contraceptive research project will begin on June 15-16 at Point Reyes National Seashore. The research will be conducted by National Park Service, U.S. Geological Service, California Department of Fish and Game, and the University of California at Davis. The study will evaluate the effects of implementing a fertility control program to manage the size of the tule elk population inhabiting Point Reyes National Seashore. This research will provide valuable information to park managers and guide future decisions related to elk management.

This multi-year research project on immuno-contraception will determine whether this management option can be used effectively to control the elk population at Point Reyes National Seashore. Other on going elk research will determine potential impacts of elk grazing on the overall range and to other threatened and endangered species.

During the second phase of the contraceptive research project, the first vaccine will be administered by direct syringe injection. To administer the injection, 30 elk will be captured from a helicopter and hobbled by ground crews. Scientists will gather data on the individual elk and place a radio collar on each of the elk. The collar will allow scientists to follow the individual elk to determine the effectiveness of the contraceptive. After several weeks, a booster shot will be remotely administered, from ranges of 30 to 150 feet, by means of self-injecting darts. The darts are brightly colored and easily retrieved. A single annual booster inoculation will be administered to continue contraceptive effects for successive breeding seasons.

Last year, the first year of the research project, 30 elk were collared, injected, and boostered with the contraceptive vaccine. Preliminary results indicated the PZP vaccine was over 80% effective on tule elk. This is the first use of PZP on tule elk. The use of a contraceptive vaccine based on the porcine zona pellucida (PZP) has been successful in inhibiting reproduction in wild horses, white-tailed deer, and numerous captive exotic species. Currently, this technology is being applied to other free-ranging species, including feral donkeys, African elephants, water buffalo, and more than 95 species of captive exotic animals.

Immuno-contraception is a form of vaccine contraception administered to female elk which stimulates the immune system to produce antibodies that block sperm from attaching to the ovum. Fertilization is prevented by a glycoprotein-based vaccine which would not interfere with pregnancies in progress, or with established social behavior. This method poses little physical risk to the animals.

Because of the use of helicopters, the Tomales Point Tule Elk Range will be temporarily closed to the public to help ensure the safety of both the public and the elk. The area is Congressionally-authorized wilderness, the area is closed to all other aircraft.

Funding for tule elk projects has come from a variety of sources. To date, monetary support and in-kind services for the project have been received from the Rocky Mountain Elk Foundation, Bosack and Kruger Foundation, Point Reyes National Seashore Association, Committee for the Preservation of Tule Elk, California Department of Fish and Game, The Humane Society of the United States (HSUS), University of California at Davis, the National Park Service Natural Resource Preservation Program, and In Defense of Animals.

For the last three years, research has been conducted to obtain critical data on population dynamics, herd composition and size, and the condition of the plant communities on

Tomales Point. Research has also been conducted to ascertain the potential impacts of tule elk grazing on special status species. From this critical research and public input, a final management plan was developed to ensure long-term protection for the elk and Tomales Point.

-more-

Tule elk were reintroduced to Point Reyes National Seashore on Tomales Point in the spring of 1978 with two bulls and eight cows translocated from the San Luis Island National Wildlife Refuge near Los Banos, California. The elk were released on 2,600 acres within a fenced area of open grassland and coastal scrub, withdrawn from cattle grazing and designated as legislated wilderness. Initially, tule elk population growth was low increasing at an annual rate of about 15 percent. This rate of growth remained constant throughout a period of sustained drought during the mid- and late-1980s. By the summer of 1988, the population was at 93 animals. Their numbers continued to increase: 169 elk were counted in 1991, 240 in 1993, and 254 in 1994. Following the end of the drought in the early 1990s, range condition improved dramatically with a consequent rapid increase in elk numbers. The population census taken in the fall of 1996 counted 386 elk (approximately 90 calves)--a 33% increase from the prior year. In the spring of 1997, 92 calves were born and the population reached 465 elk. Over 50 calves have been born this spring increasing the current Point Reyes herd size at about 515; 16% of the state population.

Since 1971, the California Department of Fish and Game has captured and moved more than 900 tule elk to reestablish herds in suitable historic habitat. The statewide tule elk population has increased from approximately 500 animals in three herds in 1970 to more than 3,000 animals in 22 separate herds today. At one time, a half million elk roamed California's mountains, valleys and coastal forests; by 1860 only two small herds remained.

###